REMARKS

In the Office Action, the Examiner objected to claims 52, 54 - 62, 65, 66 and 68 for informalities, rejected claims 87 and 89 under section 101, rejected claims 87 and 89 under the first paragraph of section 112, rejected claim 64 under the second paragraph of section 112, and rejected claims 39 - 46, 51, 53 - 56, 58 - 61, 70, 72, 75 - 77 and 79 - 83 and 85 - 92 as obvious over Clouthier in view of Spaulding.

Claim Objections

Claims 52 and 54 have been amended as suggested by the Examiner. Applicants thank the Examiner for the careful review.

35 USC §101

Claims 87 and 89 have been amended to provide that the computer program element is stored on a computer readable media and is executable on a computer. Applicant submits that the claims are directed to statutory subject matter.

35 USC §112, 1ST ¶

The claims 87 and 89 as amended are supported by enabling disclosure in the application. Withdrawal of the rejection is hereby requested.

35 USC §112, 2ND

Claim 64 now depends from claim 63 and so proper antecedent basis is provided.

35 USC §103(a)¶

The prior art rejection is based on a combination of two documents, Clouthier U.S. Patent No. 5,949,964 and Spaulding U.S. Patent No. 5,822,451. The Clouthier and Spaulding references do not obviate the subject matter of the independent claims 39 and 75. The claimed invention is described in the present application on page 3, line 18 through page 4, line 5, for example. From this passage, it is apparent that processing the image raster data within the data stream does not occur pixel by pixel, but that in a first step every page is divided into tiles each containing a plurality of pixels. The further analysis is then carried out tile by tile. In this analysis, only those tiles consisting of plurality of *dither cells exclusively* undergo a

special data compression. Tiles containing neither dither cells nor other pixel cells apart from dither cells are transmitted by means of a conventional standard procedure. The *tiles only containing dither cells* thus filtered out are then marked, and the corresponding gray scale value as well as a corresponding model dither cell is determined only for these tiles, followed by a special data transmission in which characteristic data of said tiles and position data of said tiles are transmitted.

The Clouthier reference deals with half-tone technique, intending to enhance the quality of half-tone images when printing and to prevent anomalies that have occurred in the prior art (see column 2, lines 21-34; column 2, lines 37-54). For this purpose, the incoming image data are classified in the half-tone module 26 into the categories text data, graphic data and raster data. These raster data can also contain dither cells (super pixel). The raster data undergo a special dither procedure in order to enhance their quality when printed. A data compression of a plurality of dither cells (as in the case of the present invention) is not described in the Clouthier reference.

Neither does the Clouthier reference describe the process step, dividing said image raster data of each of one of the pages into tiles of a two-dimensional grid network, each of the tiles include a plurality of said image raster data. The reference only states in general that data segments are classified. The classification with reference to tiles on the basis of a grid network is not described therein.

The Clouthier reference does not describe either that each the containing dither cells exclusively and no other cells is marked. Instead, each data segment is classified depending on the nature of the data (graphic, text, raster) according to the Clouthier reference.

The Spaulding references describes the *optimization of dither cells* for different color channels (see column 3, lines 1-25). In this context, *optimized dither cells* are selected for each color channel by means of look-up tables (LUTs) and transferred to the control. Spaulding does not further describe the analysis carried out in particular in independent claims 39 and 75, in which tiles containing dither cells exclusively are selected and marked, wherein the corresponding model dither cell as well as the gray scale value thereof are determined, and

wherein the position of these tiles and the corresponding gray scale value are used instead of the usual data in order to reduce the data to be transmitted for these parts of a page.

Similar comments apply to claims 80, 85, 86, 87, 89, 91 and 92.

Accordingly, Applicant respectfully submits that the claims as presented herein are non-obvious over the combined teachings of the cited prior art and withdrawal of the obviousness rejection is hereby requested.

Conclusion

Applicants respectfully request favorable reconsideration and allowance of the present application in view of the foregoing.

Respectfully submitted,

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(54) ELECTRODE FOR JOINING METAL AND METHOD OF MANUFACTURING THE SAME AS WELL AS WELDING FACILITY EQUIPPED WITH THE SAME AND PRODUCT WELDED BY THE SAME

(57) Abstract:

PROBLEM TO BE SOLVED: To provide an electrode for joining metals having excellent cooling efficiency and electrical conduction and a joining method.

SOLUTION: Material having at least one characteristic of the characteristics of the electrical heatability higher than that of a conductor section or the characteristic of the greater electric resistance or the characteristic of the lower thermal conductivity is used for the electrode for joining the metals comprising the central electrode and the conductor section covering the central electrode.

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